## Project Design Phase-II Technology Stack (Architecture & Stack)

| Date             | 16 October 2022  |
|------------------|--|
| Team ID          | PNT2022TMID15265   |
| Project<br>Name  | Visualizing and Predicting Heart Diseases with an Interactive Dash Board |
| Maximum<br>Marks | 4 Marks  |

## **Technical Architecture**

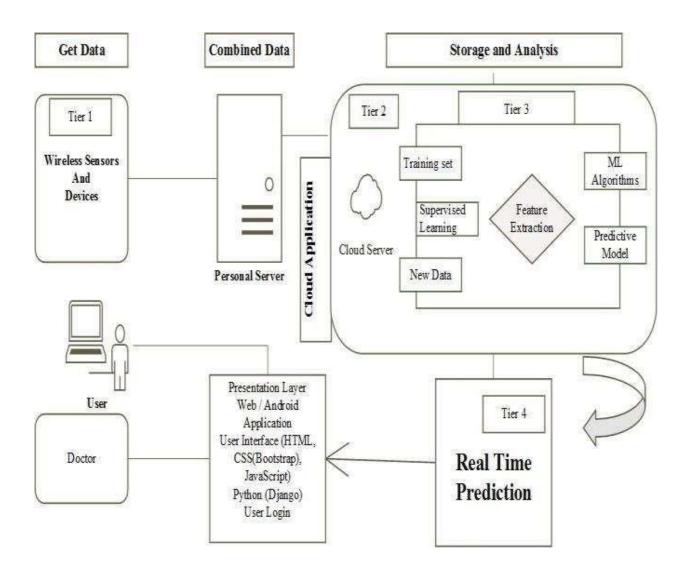


Table-1 : Components & Technologies:

| S.No | Component                       | Description  | Technology   |
|------|---------------------------------|--|--|
| 1.   | User Interface                  | How user interacts with application e.g. Web UI, Mobile App, etc.                                      | HTML, CSS, Python etc.   |
| 2.   | Application Logic-1             | Logic for a process in the application   | Python   |
| 3.   | Application Logic-2             | Logic for a process in the application   | IBM Cognos Analytics   |
| 4.   | Application Logic-3             | Logic for a process in the application   | IBM Watson Assistant   |
| 5.   | Database                        | Data Type, Configurations etc.   | MySQL, etc.  |
| 6.   | Cloud Database                  | Database Service on Cloud  | IBM DB2, IBM Pak etc.  |
| 7.   | File Storage                    | File storage requirements  | Use Professional Records Storage,<br>IBM Block Storage or Other Storage<br>Services. |
| 8.   | External API                    | Purpose of External API used in the application  | IBM SPSS, etc.   |
| 9.   | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration: | Personal Server, IBM Cloud Server etc.   |

**Table-2: Application Characteristics:** 

| S.No | Characteristics          | Description   | Technology  |
|------|--------------------------|---|---|
| 1.   | Open-Source Frameworks   | Open-source frameworks used                                   | Technology of Opensource framework – Django or Flask in Python.   |
| 2.   | Security Implementations | Security / access controls implemented, use of firewalls etc. | e.g. Privacy - Encryptions, IBM<br>Security Manager etc.  |
| 3.   | Scalable Architecture    | Scalability of architecture (3 – tier, Microservices)         | Technology used - IaaS, PaaS,<br>SaaS (IBM Cloud).  |
| 4.   | Availability             | Availability of application                                   | Technology used - The Availability of getting used to this software or product design is through by accessing IBM cognos Analytics and IBM cloud.   |
| 5.   | Performance              | Performance of the application                                | Technology used - The performance should be fast relaying. This prediction system should be made available in cloud to ensure better accessibility and setting a milestone in providing good quality affordable healthcare. |

## References:

https://www.ibm.com/products/cognos-analytics

https://cloud.ibm.com/catalog/services/watson-assistant

https://www.ibm.com/in-en/cloud-paks

https://www.ibm.com/cloud